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REPORT NO. [REDACTED]

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COUNTRY Czechoslovakia

DATE DISTR. 4 Dec. 1953

SUBJECT 1. New Type of Grid Used in the Production of Small Vacuum Tubes NO. OF PAGES 5

2. New Method for Punch-Forming Aluminum Parts

DATE OF INFORMATION [REDACTED]

REFERENCES:

PLACE ACQUIRED [REDACTED]

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THIS IS UNEVALUATED INFORMATION

1. A new type of grid material for the production of screen grids and anodes, all for small receiver vacuum tubes, was developed in the Tesla-Hloubetin plant in Prague-Hloubetin during 1949. The material used for this purpose was nickel sheet or iron sheet nickel-plated about 0.15 mm. thick. The sheet, which was drawn off a drum in a continuous process, went through a special cutter where it was perforated with a series of slots Annex A. The perforations were about one millimeter long and some few tenths of a millimeter wide. Then the perforated sheet went through two pairs of revolving rollers. The revolving speed of the second pair of rollers was twice that of the first pair. The procedure stretched the sheet into lengths while the slots opened up into rhombic-shaped holes of 0.9 mm. x 0.9 mm. spaced closely together. This grid material proved satisfactory and replaced both the grids woven from wire and the simply perforated sheet which was used formerly. It was better, cheaper, and easier to produce and less material was needed for its production. The production of this grid material was transferred from the Tesla-Hloubetin plant to the Tesla-Roznov pod Radhostem N 49-28, E 18-08 plant at the beginning of 1950, and later it was transferred to the Tesla-Vrchlabi N 50-38, E 15-36 plant.
2. A new process, for Czechoslovakia, for punching various parts out of aluminum in gold state was developed in the Tesla-Hloubetin plant during 1949. A heavy hydraulic press pressed a die on an aluminum billet. The die was of the same profile and the billet of the same volume as the part to be punched. Being pressed, the aluminum from the billet entirely filled up the spaces of the die. This method was used to form shielding cans for I.F. tuning circuits, etc. Annexes B and C. The aluminum used had to be of at least 99% purity. The

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50X1 aluminum billets were three millimeters in diameter and seven to eight millimeters high for condenser coverings and slightly smaller for trimming condensers. The billets were delivered to the Hloubetin factory [redacted] (The production of broadcast receivers in the Tesla-Hloubetin plant stopped during 1951 and was transferred to other plants. [redacted] 50X1

- 50X1 1. [redacted] comment: This is probably the process known as billet forming in the US.

Annexes:

- A. Grid Material Production Process
- B. Diagram of Punching Process of Small Trimmer Condenser
- C. Diagram of Punching Process of Condenser Can

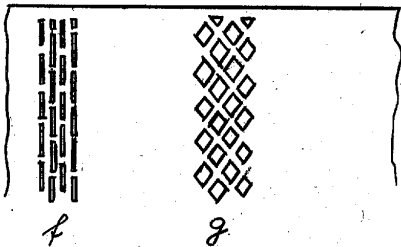
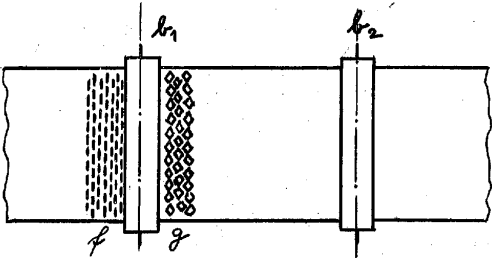
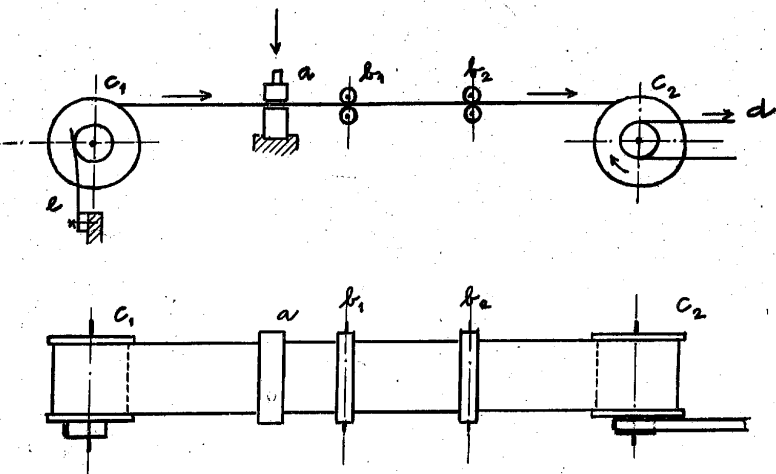
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ANNEX A: Grid Material Production Process

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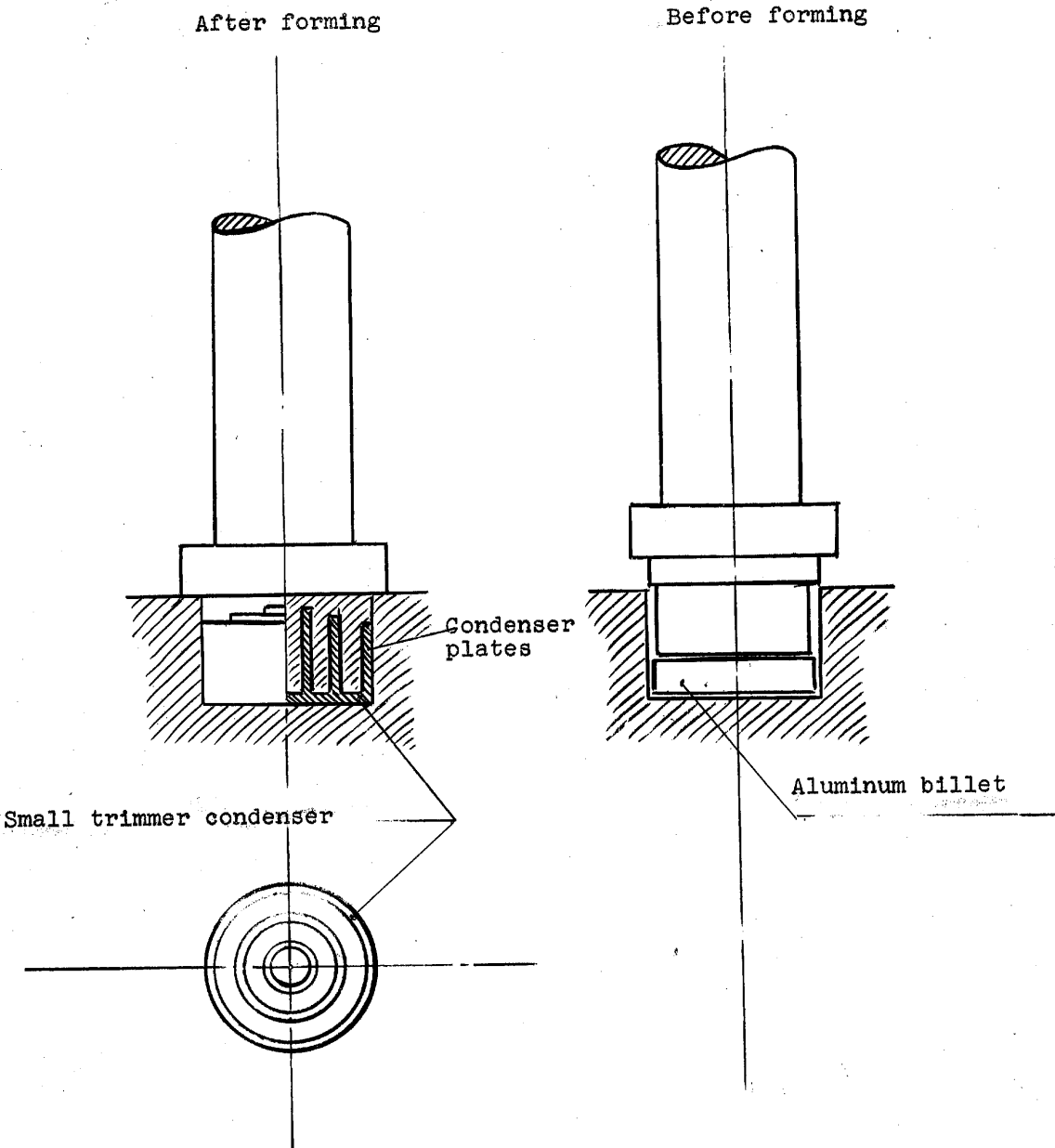
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ANNEX B: Diagram of Punching Process of Small Trimmer Condenser

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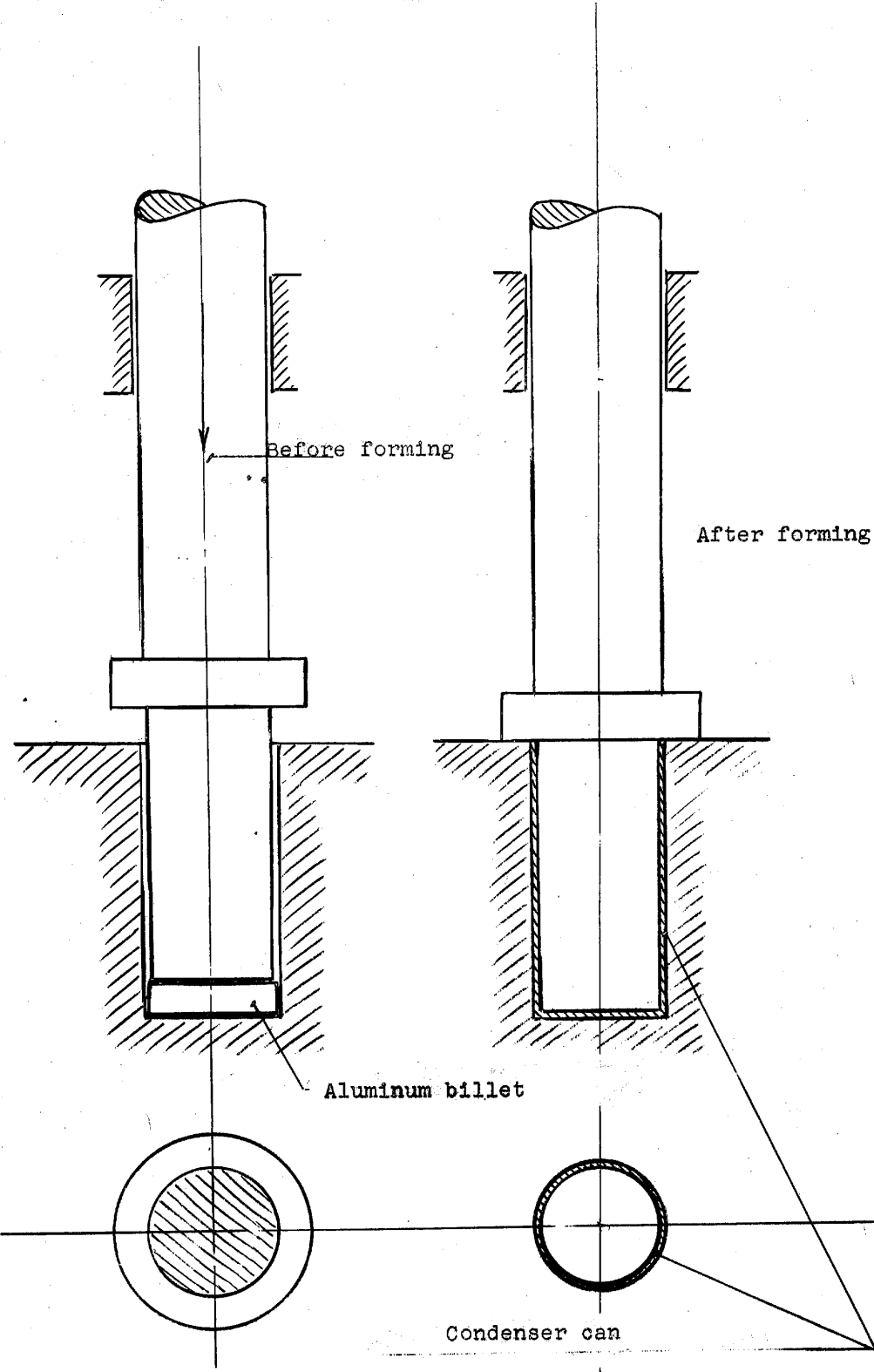
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ANNEX C: Diagram of Punching Process of Condenser Can

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